

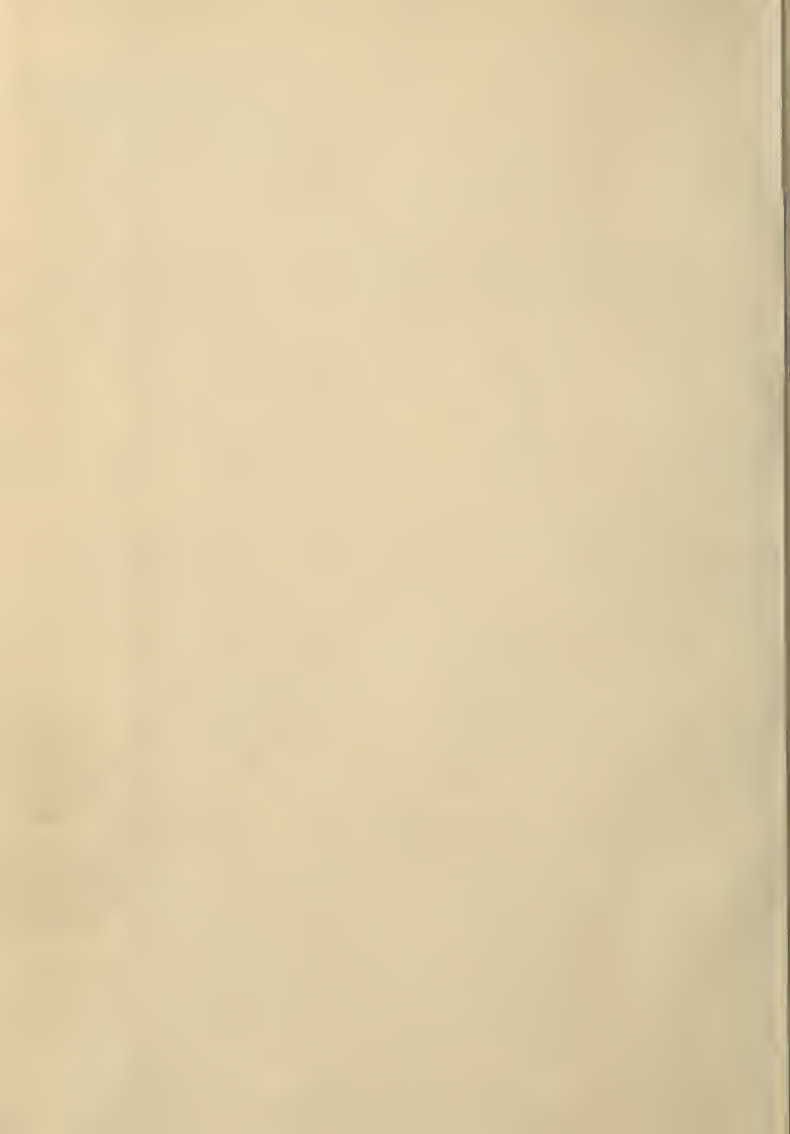
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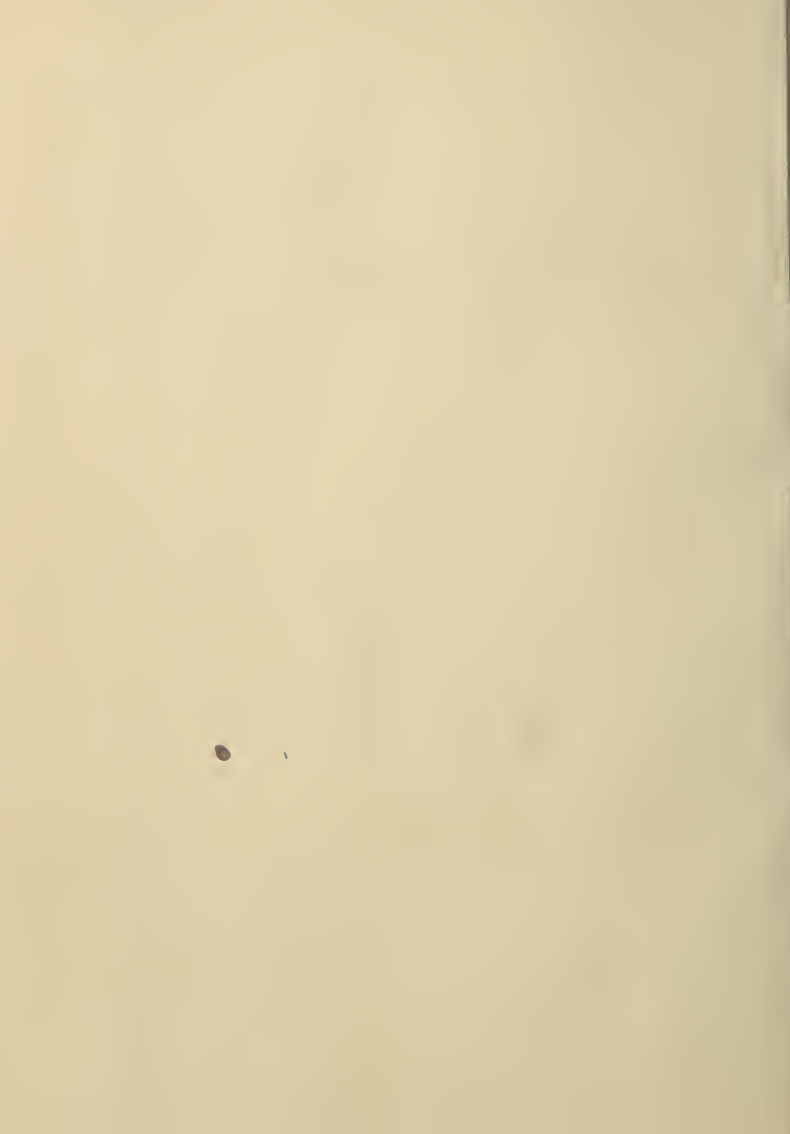
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Practical Notes on the Treatment of
Skin Diseases.

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139 N. CALVERT STREET,

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IN PREPARATION :

Practical Notes on the Treatment of Skin Diseases. No. II. Eczema.

Practical Notes on the Treatment of Skin Diseases.

I.

Diseases of the Perspiratory and Sebaceous Glands.

INCLUDING HYPERIDROSIS, BROMIDROSIS, PRICKLY HEAT, SEBORRHEA, COMEDO,
ACNE, ACNE ROSACEA, SYCOSIS, AND OTHER DISORDERS OF THE
CUTANEOUS GLANDULAR SYSTEM.

BY GEORGE H. ROHÉ, M. D.,

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OF HYGIENE," ETC.



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INTRODUCTION.

A KNOWLEDGE of the diseases of the skin is of great importance to the practitioner. Although skin diseases do not, as a rule, tend to shorten life, the discomfort or disfigurement they produce are so annoying, that persons afflicted with them are more emphatic in their demands for relief, than if suffering from maladies of much greater gravity. An eczema of very limited extent, a simple ringworm, or an ordinary eruption of acne, will frequently cause the patient more anxiety than a catarrhal pneumonia with its dangerous sequel, or a reducible hernia with its constant menace of fatal strangulation.

The student or young practitioner will find it to his advantage to give some time and attention to the study of this branch of practical medicine. In every community there are sufferers from curable skin diseases who are compelled to bear their afflictions year in and year out because the physicians to whom they have applied for

relief, failed to recognise the character of the disease, or recognising it, failed to apply the appropriate remedy. Hence, a practical knowledge of the diagnosis and treatment of skin diseases may, not seldom, have a decisive influence upon the young practitioner's success in obtaining a practice.

It must be confessed, however, that the impression made by most text-books of dermatology is not reassuring. Complicated classifications or "systems," an awkward nomenclature, great prolixity and a lack of definiteness in the description of typical diseases, and an undue multiplication of morbid processes are the besetting sins of many of our standard works.

In the following pages I have tried to give brief and exact descriptions of the various diseases considered, and to indicate the simplest and most direct methods of treatment. The needs of the practitioner have been primarily kept in view. Theoretical questions have been entirely subordinated to plain matters of fact.

Should this opusculè meet with a favorable reception from the profession, it will be followed at intervals by similar contributions on other diseases of this important organ.

ANATOMY AND PHYSIOLOGY OF THE PERSPIRATORY GLANDS.

THE perspiratory glands consist of simple tubules, which at their blind extremities are coiled up into a spherical mass embedded in the lower portion of the derma, or in the sub-cutaneous tissue, where they are generally in relation with a mass of fat. The duct, or rather that part of the gland not coiled up passes through the cutis in a straight or slightly wavy line, but becomes spirally twisted on its way through the epidermal layer, ending in a funnel-shaped opening on the surface.

The sweat glands are most numerous in the palms, soles and axillæ. They are entirely wanting in the glans penis, prepuce and the margin of the lips. The average number to the square inch is 1,000, and the total number is estimated at nearly two and a half millions, with a secreting surface of about 40,000 square inches. The total length of tubing, supposing the convoluted ends to be uncoiled, would amount to nearly eight miles.

In the axilla the diameter of the sweat glands is from one-third of a line to a line and a half. (Krause.)

The main function of the perspiratory glands is the secretion of sweat. The smaller glands are lined with a nucleated pavement epithelium, while the larger ones have a lining of cylindrical epithelial cells. The convoluted portion of the gland is surrounded by a net-work of capillaries. They are also richly supplied with nerves. Their secretion contains water, fats and volatile fatty acids, cholesterin, urea, chlorides and phosphates. Its normal reaction is alkaline. Under certain conditions of defective action of the kidneys, the skin may perform the function of these organs vicariously.

The suppression of cutaneous perspiration was formerly looked upon as very serious and generally followed by fatal results. Experiments made upon small animals (rabbits) by covering the entire surface with an impervious varnish, resulted in the death of the animals. These experiments are not conclusive, however, for it has been found that large dogs and horses thus treated do not die. The fatal result in the smaller animals is explained by the rapid loss of heat from the surface when this is covered with an impervious material.

The secretion of sweat varies in different individuals. It is also influenced by differing conditions of environment, such as heat and cold, muscular exertion, dilatation of the superficial vessels, increased blood pressure, abundant or hot drinks, certain medicines, and above all the action of certain nerves.

Stimulation of the vaso-dilator, or paralysis of the vaso-constrictor nerves may produce increased secretion of sweat. Excitation of certain special "sweat nerves," the centres of which are situated in the medulla (Nawrocki, Ott) and spinal cord, (Luchsinger) causes active secretion. It has been found that this secretion may be produced on stimulating the sweat nerves, even after the extremity has been severed from the body.

"Sweating may be brought about as a reflex act. Thus when the central stump of the divided sciatic (in which are contained the sweat fibres) is stimulated, sweating is induced in the other limbs, and the introduction of pungent substances into the mouth will frequently give rise to a copious perspiration over the side of the face." *

* Foster, Physiology, Second Am. Ed., p. 499.

DISORDERS OF THE SWEAT GLANDS.

THE disorders of the sweat glands are functional; no structural alteration of these glands, independent of any other disease, is known. The sweat may vary in quantity, or be altered in quality. The quantitative variations in secretion consist in excessive secretion, *hyperidrosis*, and deficient secretion, *anidrosis*.

I. QUANTITATIVE DERANGEMENTS OF THE SECRETION OF SWEAT.

HYPERIDROSIS.—*Excessive Sweating.*

The quantity of sweat excreted in health varies so widely in different individuals that it is difficult to indicate the dividing line between physiological and pathological sweating.

Hyperidrosis may be general or local. The former is most likely to be an accompaniment of some diseased state, as phthisis: or it may occur in the course of an acute febrile affection as pneumonia, typhoid, malarial, or relapsing fevers. In the latter class of diseases the

sweating is an indication of defervescence and requires no treatment. The phthisical sweats frequently demand therapeutic interference on account of their exhausting effects.

Among the general hyperidroses may be mentioned the so-called "sweating sickness" which formerly prevailed epidemically in portions of Europe and which has been observed in France as late as the year 1874. For details in regard to this curious disease the reader is referred to the author's "*Text Book of Hygiene*," page 248-250.

General hyperidrosis is often an accompaniment of corpulence, constituting a very annoying complication of this derangement of nutrition.

Local hyperidrosis in the majority of cases affects the palms of the hands, soles of the feet, or the axillæ. The foot and axillary sweat has often a very offensive odor.

This odor is not present in the freshly secreted sweat, but is developed in consequence of certain chemical changes in the secretion. Thin believes it to be due to the presence of an organism which he has named *bacterium fætidum*. Persons so affected are constantly environed by a fetid exhalation, and may be literally said to "stand in bad odor."

Local sweating also accompanies many nerve lesions or disturbances. Thus migraine is often accompanied by excessive perspiration limited to the area of distribution of the affected nerve.

The *general* treatment of the excessive sweats of phthisis consists in tonics and astringents. Aromatic sulphuric acid in fifteen drop doses four to six times daily is often of great utility. Atropine in doses of $\frac{1}{200}$ – $\frac{1}{100}$ grain can be relied upon with much confidence to check the excessive secretion, although a permanent effect cannot be hoped for. In these cases local treatment is usually of little avail.

The treatment of the hyperidrosis of obesity is of no avail without such measures as will at the same time result in a diminution of the accumulated fat. An appropriate diet of fats and albuminoids, with rigid exclusion of carbohydrates is indicated.

In the *local hyperidroses* the principal reliance must be placed upon local measures. Of course, the condition of the general health demands attention, and anemia or digestive derangements require appropriate treatment. Aside from this the constitutional treatment can be summed up under the general head of hygienic measures,—good food, fresh air, exercise, and possibly tonic medicines.

For the disagreeable sweating of the palms, a lotion of tannic acid 2-3 grains to the ounce of alcohol; or simply cologne water, or bay rum (Formula 1) are very useful. The application of one of these may be followed by a dusting powder of starch, prepared chalk, or orris root. Either of these may be combined with oxide of zinc, boracic acid, salicylic acid, or calamine, with good effect (Formulæ 2-4). Similar measures will generally be effectual in excessive sweating of the axillary region.

For the excessive malodorous sweating of the feet (bromidrosis), many remedies have been recommended. In the milder cases, baths of alum water, followed by one of the above mentioned dusting powders, are sometimes effectual. For the severer grades of the affection, however, in which the feet are constantly bathed in sweat, the epidermis macerated, and the skin reddened and tender, and at the same time diffusing a most penetrating and offensive odor, there is only one method of treatment known to me which can be relied upon. It was introduced by Hebra, and has in numerous cases under my care, never failed to cure the disease. The procedure is as follows:—

The feet are first washed and thoroughly dried. Each foot is then enveloped in a piece of linen

or muslin of proper size (about one foot square) thickly spread with diachylon ointment (Hebra's ointment, ung. vaselini plumbicum, see Formulæ 5, 6). Small pieces of linen spread with the ointment are also inserted between the toes. Clean foot-wear is then put on. On the following day, the cloths are taken off, the feet wiped dry with a towel, *but not washed*. One of the absorbent powders above mentioned (Formula 4) is thickly dusted on, and the feet again enveloped with the ointment. This procedure is repeated daily for ten days to two weeks, during which time the feet must not be washed. The ointment is then omitted, but the powder is still used several times a day. After a few days the epidermis is exfoliated in thick, yellowish, parchment-like flakes, and new soft skin appears. Now for the first time the feet may be washed. The new epidermis is of a healthy pink color, and the secretion normal. The powder should be continued for some time.

If the hyperidrosis is not entirely cured, the same course should be repeated: but this is rarely necessary.

Thin recommends dusting the shoes and stockings with boracic acid, and wearing a cork sole on the inside of the shoe. He also advises the application of a boracic acid ointment. (Formula 7).

ANIDROSIS.—*Defective excretion of sweat.*

This should properly be termed hypohidrosis, as the secretion is rarely entirely suppressed. It accompanies certain grave constitutional or nervous affections, as diabetes, tuberculosis, myelitis and poliomyelitis. Locally it also occurs on eczematous, psoriatic and ichthyotic patches.

The treatment in each case will be that appropriate to the underlying general or local condition. The dryness of the skin may be relieved by the glycerite of starch (Formula 8).

II. QUALITATIVE DISORDERS OF THE SWEAT SECRETION.

BROMIDROSIS.—*Odorous sweat.*

Certain nervous diseases are accompanied by modifications of the odor with or without increase in the quantity of the perspiration. Hammond has reported several cases of this kind. The odor is not always offensive, but may even be agreeable, as in Hammond's cases, in two of whom it resembled that of violets.

In the majority of cases, however, the odor of the sweat in bromidrosis is the reverse of agreeable, and is nearly always due to decomposition of the secretion. The treatment of these cases is that mentioned on page 13. In one of Hammond's cases salicylate of sodium in five-grain doses arrested the hyperidrosis as well as the emission of the odor.

CHROMIDROSIS.—*Colored sweat.*

The perspiratory secretion is usually colorless, but sometimes it presents a distinct color. Red, blue, green, yellow, or black sweat have been

reported. In many of the reported cases the color was doubtless due to some reaction between the sweat and some material adhering to the skin or in the clothing. In others the discoloration was intentionally produced. In red and yellow sweat Eberth and Babesiu have found bacteria. It is not improbable that colored sweat, unless feigned, is always due to the presence of minute organisms. It is known, for example, that the color of blue pus is produced by a bacterium.

The treatment might be rationally germicidal. A lotion of mercuric bichloride, one grain to the ounce, or Labarraque's solution (liq. sodæ chlorinatæ) should be effective in case the color is due to micro-organisms.

URIDROSIS.—*Urinous sweat.*

In cases of kidney disease, in Asiatic cholera, and in experimental observations on the cutaneous perspiration, urea and other constituents of the urine have been found in the sweat. As this is merely an incident in some grave underlying disease generally, it does not require any special treatment.

SUDAMEN.—*Sweat blisters.*

In cases of typhoid, typhus and puerperal fevers, rheumatism and pneumonia, there is

frequently an eruption of minute whitish, or pearly, non-inflammatory vesicles, coincident with the so-called "critical sweat." The vesicles are due to the excessive secretion, which elevates the epidermis in minute areas. The eruption has no especial significance and requires no treatment.

PRICKLY HEAT.

Under ordinary circumstances the average quantity of sweat secreted in twenty-four hours by a healthy adult is about twelve ounces. This, however, is materially modified by varying conditions of external temperature, character and amount of food and drink, dress, emotional conditions, or the swallowing of certain medicines. The exact quantity of fluid and other matters discharged daily in the sweat can, therefore, not be definitely stated.

Ordinarily this secretion takes place without producing any discomfort, but when it becomes excessive in consequence of the causes mentioned, it often gives rise to a most aggravating and troublesome disease of the skin.

The characteristic features of prickly heat are so familiar as to make any extended description unnecessary. It occurs in the form of small bright-red pimples, rarely larger than a pin-head

in size, thickly scattered over the surface of the body, and accompanied by a most distressing sense of tingling, burning and itching. Often the small red pimples are capped by a minute blister containing a droplet of a colorless or pearly fluid. The eruption may appear anywhere upon the skin except the palms of the hands and soles of the feet, where it is rarely or never seen. It is nearly always limited to those portions of the body covered by the clothing. In plump, well-fed children it is also often seen in the folds of the skin at the front of the neck.

These little red elevations indicate the mouths of the sweat glands, which are irritated and inflamed in consequence of excessive activity. This is generally due to high temperature, excessive exertion and unsuitable clothing. The excessive use of hot drinks, confinement in close, ill-ventilated apartments, lack of attention to proper cleanliness of the skin, improper administration of medicines containing opiates or similar drugs which have an irritating action upon the skin, may give rise to or intensify this disease. Disturbances of digestion are also believed to be effective in its causation.

The distress caused by the eruption leads the sufferer to seek relief by rubbing and scratching the affected surface. The ease obtained in this

way is only temporary, however, and in a short time the itching and burning return with greater intensity. the scratching is repeated, and, if no relief is given by medical means or a cessation of the cause, an inflammation of the skin proper, an eczema, may be produced, which will often persist a long time and prove very resistant to treatment.

I may be permitted to digress here for a moment to call attention to the frequency with which this very obstinate and troublesome disease is the result of neglect of very trivial ailments. An outbreak of prickly heat, or nettle rash, or a simple chafe, if neglected or improperly treated, is often followed by an eczema lasting months or years—nay, which not infrequently attends the individual throughout life. Dermatologists see cases almost daily in which the ounce of prevention, properly applied, would have far outweighed many pounds of cure.

The use of flannel next to the skin, especially during hot weather, is the principal avoidable cause of prickly heat. Flannel clothing ought at no time to be worn directly in contact with the skin.

Prickly heat is often greatly intensified by improper methods of treatment. Hot drinks or other sudorific remedies internally, and irritant

local applications, nearly always make the disease much worse.

An eruption very similar in appearance to prickly heat sometimes affects children when teething, or when suffering from an attack of acute indigestion or similar complaint. This is a fine nettle rash. It is not limited to the parts covered by clothing, and not rarely attacks the palms of the hands and soles of the feet. The itching is usually more intense than in prickly heat. The eruption appears and passes away suddenly, and may often be made to disappear by an emetic or brisk purge.

It is a popular fallacy that the eruption of prickly heat is salutary, and that no effort should be made to cure it for fear of "driving it in" and causing some other serious disease. There is no need to fear any ill consequences from a rapid cure of the complaint. The danger is rather, as above pointed out, that if neglected it will develop into another and much more obstinate disease.

Prickly heat need rarely cause much difficulty in treatment. The following measures will usually succeed in promptly relieving the intense irritation and restoring the normal condition of the skin.

The dress should be light, all flannels and im-

pervious articles of clothing being removed. Cool baths should be taken often enough to remove the perspiratory secretion before it decomposes, and to keep the skin cool. After the bath the skin should be carefully dried with a soft towel, and the affected surfaces powdered with starch powder, or a mixture of starch and oxide of zinc (Formula 2), or carbonate of zinc and orris root (Formula 3).

Lotions containing alcohol, as cologne water or bay rum may also be used when the outbreak is local, following the lotion with one of the powders. Formula No. 4 will often be of good service. All powders used should be perfectly smooth and contain no gritty particles. Preparations containing sulphur should be avoided, as they are more likely to increase than to allay the irritation.

If the itching is excessive, lotions containing one to two drachms of bicarbonate of soda to the pint of water may be applied with a soft sponge and allowed to dry on the skin. Ointments must not be used, as they nearly always aggravate the complaint.

If the eruption covers the entire surface alkaline baths containing two to four ounces of carbonate of soda to the bath, or bran baths, may be employed, and will rarely fail to give at least

temporary relief from the excessive itching. A bran bath is prepared by enclosing from five to six pounds of bran in a thin muslin bag and steeping it in the bath for fifteen to twenty minutes before using the bath. The bag should be occasionally kneaded and squeezed in order to diffuse the mucilaginous contents throughout the water. Gelatine and starch baths, containing one to two pounds of gelatine or one pound of starch to the bath, are also often valuable aids in the treatment. After each bath the skin should be carefully dried without friction and dusted with starch, as above directed.

The causes of the disease should be avoided if possible.

ANATOMY AND PHYSIOLOGY OF THE SEBACEOUS GLANDS.

The sebaceous glands are lobulated glandular organs found in all parts of the skin except the palms of the hands, soles of the feet, and the dorsal surfaces of the third digital phalanges. Special varieties of these structures are Tyson's glands on the glans penis, the Meibomian glands and the ceruminous glands of the external meatus. They are nearly always in connection with a hair follicle. If the hair is thick, as in the scalp or beard, the glands seem to be appendages to the hair follicle, and discharge their secretion into the follicular canal. On the other hand, the fine hairs seem to be merely appendages to the gland, the duct of the latter opening directly upon the surface, and the hair shaft passing out through the gland duct. The glands in the tegument of the glans penis are not connected with hair follicles.

The number of sebaceous glands in the skin of the adult is estimated by Bulkley as at least

600,000. Their size varies extremely, measurements having been given at $\frac{1}{600}$ — $\frac{1}{36}$ of an inch in diameter.

The secretion of the sebaceous glands consists of epithelial débris, cholesterin, fat and fat crystals. Its function is probably to keep the skin and hair soft and pliable, and to limit absorption and evaporation.

DISEASES OF THE SEBACEOUS GLANDS.

The diseases of the sebaceous glands may be divided into functional disorders and structural lesions. The latter frequently arise from the former.

I. FUNCTIONAL DISORDERS OF THE SEBACEOUS GLANDS.

SEBORRHŒA.—*Excess and Alteration of the Sebaceous Secretion.*

Seborrhœa appears under two forms, Seborrhœa sicca and Seborrhœa oleosa. The former is generally found upon the hairy scalp and the trunk, while the latter is often localised upon the face.

Dry seborrhœa of the scalp is frequent in infants, in whom the head is covered with a more or less thick, yellowish, or brownish crust, under which the skin is dry and of the normal color, or slightly hyperemic.

In the adult, seborrhœa of the scalp usually appears in the form of a furfuraceous desquam-

ation popularly known as "dandruff." In some cases, however, the scales are massed together in a firm layer under which the skin is frequently reddened. When seborrhœa of the scalp lasts for some time it usually causes loss of the hair. It is probable that by far the majority of cases of early baldness are due to neglected or improperly treated seborrhœa. Hence the importance of early attention to this apparently insignificant affection.

Upon the chest and back, seborrhœa generally appears in the form of roundish or irregular red patches covered by a layer of loose, whitish, greasy scales. Such patches are often found upon the sternal region, and may easily be mistaken for psoriasis.

Seborrhœa oleosa is almost exclusively limited to the face, especially the nose and cheeks. The skin of these parts is smooth, oily and shining. Dust rapidly accumulates on the oily surface, and the affected individuals find it almost impossible to keep clean.

The causes of seborrhœa are not well known; but it is often an accompaniment, or a consequence of continued fevers, syphilis, tuberculosis or general anemia. In many cases no reason for its existence can be discovered.

The diagnosis of seborrhœa rarely presents

any difficulty. At times, however, it bears such a close resemblance to some other common diseases as to render a careful examination necessary in order to come to a positive decision.

The diseases with which seborrhœa is likely to be confounded are eczema, psoriasis and ringworm.

In eczema there is always more redness of the skin and greater itching than in seborrhœa. There is also generally at some stage of eczema, serous discharge, which is never present in seborrhœa.

In psoriasis, the scales are dry, silvery white, and seated upon a bright or deep-red, slightly elevated base with a sharply defined margin. In seborrhœa the scales are usually dirty-white, grayish, or yellowish, and greasy to the touch. The border between the affected and normal skin is not well defined.

The small patches of seborrhœa upon the chest sometimes resemble ring-worm. Here the microscope will generally decide the nature of the affection by revealing the spores or mycelium of the fungus of ring-worm.

The treatment is principally local. If scales have accumulated to form crusts, these must be softened by some oily application. Sweet or almond oil are excellent for this purpose. Vaseline or cosmoline are unsuitable as they do not

saponify in the presence of alkalies (soaps) and hence are difficult to remove, especially from the hairy scalp. Fresh lard answers much better.

The application of a hot, moist poultice, for several hours often promotes the loosening of the scales. After thorough softening of the crust, the scalp, or the part affected is washed with soap and water. The best soap for this purpose is the German soft soap (*sapo viridis*). This soap has a strong odor of fish oil which makes it very disagreeable. The odor can be very well covered, however, by dissolving the soap in alcohol and adding a little oil of lavender or bergamot. This constitutes Hebra's *Spiritus Saponis Kalini*. (Formula 9.) About a tablespoonful of this is poured upon the scalp, and with the addition of water, smart friction produces a copious lather. The soap is washed out with clean water and leaves the scalp clean, but usually with a tense sensation, as if the skin was stretched too tightly over the skull. A little oily application such as vaseline, cold cream or almond oil will relieve this uncomfortable feeling. In mild cases the shampooing and inunction of the scalp with a simple unguent will after a time cure the disease; but in chronic cases something more will be required. Here

some of the mercurial preparations, as Formulæ 10, 11, 12, or one containing sulphur, as Formulæ 13, 14, or tar (Formula 15) will be necessary. I have found carbolic acid ointment gr. xv to ʒj vaseline, to yield most excellent results.

The general treatment also demands attention. In anemic or chlorotic individuals, iron in the form of pills of the proto-carbonate (Blaud's ferruginous pills, Formula 16), or, in combination with arsenic as recommended by the late Sir Erasmus Wilson (Formula 17) is indicated. The tincture of the chloride, especially if made palatable (Formula 18) is also a most active chalybeate.

Chronic derangement of the function of digestion is also often present in cases of seborrhœa, and requires appropriate treatment. In acid dyspepsia, I have often obtained excellent results from the administration of lime-water and columbo (Formula 19).

Many patients suffering with disorders of the sebaceous glands are subject to habitual constipation. In these cases the best drug I have used is cascara sagrada. I generally prescribe the cascara cordial prepared by Parke, Davis & Co., and have always obtained excellent results from its use. Its agreeable taste renders it a

very desirable medicine. It is not objected to by the most fastidious patients. The fluid extract not rarely nauseates. I have never known the cordial to produce this effect. It should be given in teaspoonful doses once or twice a day until one daily evacuation is regularly produced. In dispensary practice I have used with satisfaction for a number of years a combination of sulphate of magnesia and iron, (Formula 20.)

COMEDO.

Comedones are small solid elevations of the skin caused by the retention of the sebum in the gland-ducts. They can be squeezed out of their seat by lateral pressure, and appear as short yellowish or whitish fatty plugs, with the outer extremity of a blackish color, known in the vernacular as "black heads," or "flesh worms." They are found in greatest numbers upon the face, chest and back. They are unaccompanied by inflammation.

Neglect of cleanliness is the most frequent cause of comedones. They are most frequent in young persons between the ages of 12 and 25. At times no cause can be discovered. The diagnosis can never present any difficulty.

The treatment of comedo is simple. The sebum

plugs must first be expressed from the gland-ducts. This can readily be accomplished by means of a watch key. The opening of the key is placed directly over the black extremity of the plug, and direct downward pressure made, when the plug is usually easily extruded. Then the skin is washed with soap and water, the *spiritus saponis kalinus* (Formula 9) being an excellent form in which to use the soap. Afterward a mild stimulating application should be made to the skin in order to produce contraction of the calibre of the gland-duct and prevent re-accumulation of the secretion in it. For this purpose a mild sulphur or mercurial ointment (Formulæ 11, 13) is useful. Van Harlingen recommends a combination of kaoline, glycerine and vinegar (Formula 21) which I have used with some success.

Should the frictions with soap produce irritation and desquamation of the the skin they should be intermitted for a few days and a soothing ointment, such as oxide of zinc ointment or cold cream with starch (Formula 22) applied in the interval. When the irritation has subsided, the soap friction must be resumed.

If the patient is anemic or debilitated, the administration of iron, in the form of acid tincture of the chloride, (Formula 18) is indicated.

MILIUM.—*Small retention cyst of sebaceous follicle.*

This occurs in the form of small, white or pearly, elevated papules, principally situated about the eyelids. They are very superficial, being merely covered by epidermis. They are not likely to be mistaken for any other disease.

The best treatment is electrolysis. An electrolytic needle inserted into the growth, or passed through its base, and the circuit closed for a minute will usually be effectual. After a few days the papule falls off leaving no scar. The slightly pigmented mark which remains gradually fades out. Simple puncture and expression is also often effectual.

STEATOMA.—*Sebaceous cyst ; Wen.*

Wens are retention cysts of the sebaceous glands which frequently grow to considerable size. They may occur on any portion of the body where there are sebaceous glands, but are most frequently found on the scalp, face, neck and back.

The diagnosis between steatoma and lipoma is sometimes difficult. Puncture with an exploring needle or bistoury and compression, will however disclose the contents of a steatoma, and clear up the diagnosis.

The treatment consists in extirpation of the

entire gland. Incision and expression of the contents of the sac, may succeed if the interior is thoroughly cauterised with lunar caustic. Small cysts may also be destroyed by electrolysis.

ASTEATOSIS.—*Diminished secretion of sebum.*

This occurs only in conjunction with other pathological conditions: most markedly with xeroderma. Persons whose hands come in frequent contact with alkalies, alcohol, ether, etc., often suffer from an artificial asteatosis, *i. e.*, the sebaceous matter is properly secreted, but is immediately dissolved in the chemical.

The treatment consists in supplying fat to the skin, by means of frictions with vaseline, cold cream, almond oil, etc.

II. STRUCTURAL DISEASES OF THE SEBACEOUS GLANDS AND PERI-FOLLICULAR TISSUES.

ACNE.

During the period of puberty many of the organs of the body take on a new development. The sebaceous glands of the skin participate in this growth, and as a consequence, a greater or less degree of functional disturbance of these organs is likely to result. The most common form of this functional disturbance consists in an alteration in character and quantity of the

sebaceous secretion. The sebum secreted is thicker and is not so readily extruded from the gland-ducts. These latter become filled with little plugs of the secretion, which distend the ducts, and thus produce small papules, with sometimes a slight depression of the summit, which is colored black or brown. This little spot of color is the mouth of the duct filled with the secretion, and the discoloration depends upon the deposit of dirt—dust, carbon, etc., which has adhered to the end of the greasy plug as has already been described.*

This is the first stage, in the vast majority of instances, of the disease known as acne. The French writers term it *acne sebacée*; while in the English and German literatures it is known as *comedo* (plural *comedones*). In this stage, acne is a purely functional affection; if we remove the accumulation of sebum in the glands and gland-ducts and change—by appropriate treatment—the altered character of the secretion, the parts resume their normal condition and the disease is at an end.† If, on the other hand, inappropriate or no treatment be adopted the disease goes on to the next stage, that of congestive or inflammatory acne. Here,

* See *Ante*, p. 31.

† See page 32.

we find, in addition to the merely functional disturbance of the glands, a structural lesion—inflammation, with its consequences, pus-formation and hyperplasia of connective tissue.

The following sketch traces the evolution of an acne papule from its stage of comedo: The walls of the gland-duct and the immediately surrounding connective tissue become compressed, disturbance of the circulation and nutrition within a limited area take place, and inflammation follows. At this stage the papule is bright-red and painful, usually still showing the black point of the comedo at its summit. The inflammation may now subside and resolution occur, but usually the process goes on to pus-formation. A little drop of pus appears in the centre of the papule, which, if evacuated, is found to surround the plug of inspissated sebum, the original cause of the trouble.

If the disease is allowed to go on without appropriate treatment that form of acne known as the indurated or tubercular acne results. Considerable new-formation of connective tissue (inflammatory hyperplasia) takes place, and those unsightly physiognomies so often seen in young men and women, between the ages of eighteen and twenty-five result. There are dark-red blotches with firm brownish nodules,

from a split pea to a small bean in size, with angry-looking pustules scattered here and there over the face, the latter being particularly numerous on the forehead and cheeks.

Causation.—Errors in diet, excessive indulgence in or abstinence from sexual pleasures, masturbation, constipation, dyspepsia, eating particular articles of food, such as butter and cheese, have all been accused as causes of common acne. In very many individuals neither of these conditions, nor even a number of them combined being present, produce the disease; in others, the disease appears in the absence of these various supposed causes.

Although no single functional disturbance, or structural alteration of any internal organ can be held strictly accountable for the causation of acne, the disease cannot be attributed exclusively to external causes.

An epigrammatic professor of New England, has tersely given the cause of acne in the following proposition: "The country girl washes her face with soap, and does not have acne; the city girl abstains from the use of soap and does." Like all epigrams, this is only partly true. In the majority of cases of ordinary acne the abstention from soap is doubtless the immediate cause of the disease. In other cases,

however, this cannot be accused of being the cause. In some young women an eruption of acne occurs during each menstrual period. In these cases, no comedo can generally be found, and no variety of the disease is so unsatisfactory to treat.

Some women have an eruption of acne papules during pregnancy, which disappear after the pregnancy terminates. The relation between cause and effect has not been satisfactorily explained. The ingestion of various drugs, as iodide or bromide of potassium, is frequently followed by acne; the disease disappears on the discontinuance of the remedy.

Workmen in tar and petroleum or their products, not unfrequently suffer severely from painful acneiform eruptions. Cleanliness, and, if possible, cessation of exposure to the irritant vapors give relief.

The only disease liable to be mistaken for acne is the papulo-pustular syphilide. In this, however, the eruption of the lesions is usually acute, and it is not likely to be limited to the regions of the body usually affected by acne. When the syphilitic nature of the eruption is suspected, an inquiry into the history of the development of the disease will soon clear up any doubt.

Treatment.—Internal medication can usually be dispensed with in the treatment of acne. Where the condition of the stomach or bowels seems to demand it, a mild mercurial or saline laxative is probably an aid. In habitual constipation, cascara cordial, as directed on a previous page,* will often act very happily. Tincture of chloride of iron is always indicated when the congestion is considerable, or where there is much pus-formation. In strumous or tubercular individuals cod liver oil is a useful adjunct to other measures.

A rigid restriction of diet is not necessary if the digestive function is properly performed. The consumption of fatty foods, if digestible, should be encouraged. Hence, butter, fat meats, or salad oil should not be prohibited. In cases of pustular acne, the administration of calcium sulphide in doses of $\frac{1}{15}$ – $\frac{1}{4}$ grain is highly recommended by some authorities. I have never seen any good result follow its use. The same is true of ergot which at the present time enjoys considerable popularity as a remedy in acne. The fluid extract may be given in half-drachm doses twice or three times a day.

In some cases, acetate of potassium (Formula 23) seems to exert a favorable influence upon the course of the eruption.

* Page 30.

The local treatment of acne is by far the most important, and in the majority of cases suffices for the cure of the affection.

The indications for the treatment are :—1st, to remove the accumulation of sebum ; 2d, to remove the products of inflammation ; and 3d, to restore the normal functional activity of the parts.

The first indication is best met by expressing the plugs of sebum daily, by means of a watch key. Select a key with a smooth, broad base and wide opening, and placing it directly over the black apex of the papule, press the key down squarely upon the skin. A little pressure will force the plug of sebum out of the gland duct. This should be done every night. Immediately after, the face should be washed with warm water and soap, allowing the lather to remain on all night. The *spiritus saponis kalinus* may be used. In the morning the soap is washed off, and the face is dusted with oxide of zinc, calamine or simple chalk or starch powder. In simple cases, with a moderately thin epidermis this is all that is necessary and in three or four weeks the acne is cured.

In the cases which may, for want of a more definite term, be called “menstrual acne,” excellent results can generally be obtained by the

use of a lotion containing sulphuret of potassium and sulphate of zinc, (Formula 24).

In cases where the epidermis is thick,—a so-called coarse skin,—the treatment should be a little more active. Here a mixture of sulphur and carbonate of potash (Formula 25) should be painted on with a camel's hair brush, after the expression of the sebum plugs, and allowed to remain on all night. It was first recommended by Zeissl, and is certainly a valuable combination. In the morning, after washing the face, one of the above mentioned powders, or a little oxide of zinc ointment should be applied.

After a few days of this treatment, the skin becomes slightly reddened and scaly, and in some cases an uncomfortable sensation of tension or burning occurs. Then the sulphur application should be discontinued for a few days until the irritation has subsided, when the same course should be recommenced.

If there are many inflammatory papules or pustules, incision or puncture with a fine, sharp bistoury gives great relief and hastens the involution of the lesions. After the puncture the flow of blood should be promoted by a hot water douche. A basin is filled with water as hot as can be borne, and a large, soft sponge dipped into it and pressed to the face. This

should be continued five minutes or so, and is best done at night before retiring. It is an especially valuable adjuvant to the treatment, if the pus-formation is free.

In cases of indurated acne, the tubercles should be freely scarified and after the bleeding has ceased, mercurial ointment applied on bits of cloth or leather, and allowed to remain on all night. The tubercles may also be painted with a strong alcoholic solution of carbolic acid (one part to three or four of alcohol) this being repeated every 2 or 3 days.

In rare cases the treatment above recommended is too irritating. A lotion of bicarbonate of soda, (3ii : Oj) will sometimes reduce the hyperemia. The lotion of sulphuret of potassium and sulphate of zinc, (Formula 24) diluted with an equal part of water is also useful in these cases.

ACNE ROSACEA.

Acne rosacea or toper's nose, differs in its clinical features, etiology and its treatment from the condition just described. Its subjects are usually individuals above the age of 30; further, individuals who indulge to excess in wines or strong liquors—beer drinkers more rarely have it. It also sometimes occurs in young people of

defective cutaneous circulation, in whom it never gets so marked, however, as in the first class of cases.

Acne rosacea begins as a consequence of frequently recurring flushing of the face. The brandy drinker, speaking generally, has a hyperemia of a portion of the face every time he takes a drink. The vessels gradually become permanently enlarged,—perhaps increased in number, and in consequence of the local increase in nutritive material, some connective-tissue hypertrophy takes place. The increased circulatory activity of the part is accompanied by numerous stases of blood in minute areas, which eventuate in small abscesses—the acne-pustules accompanying the area of vascular injection. In mild degrees of acne rosacea, the process stops at the formation of diffused red patches. These cases are often diagnosticated as “chronic erysipelas.” Of course there is no disease properly so called. In cases of a more active type, acne pustules will be found scattered over the red base, upon which also may be noticed tortuous, dilated blood vessels. In the most exaggerated condition, we find the nose much enlarged, lobulated, brown or bluish red in color, and disfiguring the patient very much.

In the treatment of acne rosacea, the use of

wine or spirits, if these are the causes of the disease, must be forbidden. In those cases where the rosaceous patches are due to deficient nutrition, the patient must be placed under better conditions. Locally, in the patches of diffused redness, the application of the alcoholic solution of carbolic acid above recommended (one part to 3 or 4 of alcohol) will generally give most satisfaction. Where there are tortuous and dilated veins in the skin, they must be slit up with a fine knife and a pointed pencil of nitrate of silver drawn through them to cause obliteration of their calibre. Where the connective tissue is much increased, a plastic operation is sometimes necessary to restore a respectable shape to the distorted nose. When pustules are present they should be opened with a bistoury, and the pus evacuated.

In mild cases of rosacea, a wash of corrosive sublimate, 1 gr. to $\bar{5}$ j of diluted alcohol, is sometimes all that is necessary.

Occasionally the redness can be best removed by painting the skin with a solution of caustic potassa ($\bar{3}$ ii : $\bar{5}$ j) and immediately washing it off and applying oxide of zinc ointment. After a few days, the zinc and potassium sulphuret lotion (Formula 24) may be applied.

Dilated vessels may also be obliterated by

means of electrolysis using 4-6 cells of a McIntosh or Flemming battery and a fine needle. If the operation is properly performed the obliteration is permanent.

SYCOSIS.

The characteristic features of non-parasitic sycosis are inflammatory papules, pustules and tubercles, each perforated by a hair, and occupying especially the region of the beard, although the eyebrows, scalp, axillæ and pubes may also be seats of the affection.

The following is the usual history of a case of sycosis: A number of painful reddish papules or pustules appear in the beard or moustache, the single lesions being each perforated by a hair. The skin around the papules or pustules is usually reddened, and somewhat swollen and infiltrated. In some cases, however, the characteristic lesions remain perfectly isolated, no extension laterally of the inflammation taking place. The pustules are usually small, flat, or slightly elevated, with scanty contents, which they show little disposition to discharge unless punctured or broken by pressure or friction. There is often burning and exquisite tenderness to the touch; rarely severe itching. In cases of long standing, the pus has dried into crusts

and scabs, under which the surface is frequently excoriated. At times there are broad, elevated, papillary masses,—fungoid excrescences—bearing some resemblance to mucous patches. In other cases there are boils and deep abscesses. As the disease progresses, the hair follicles are destroyed, the hairs, at first still firm in their follicles, fall out, and a flat, shiny, reddened, or venated scar results, which often strongly resembles the cicatrix remaining after the involution of lupus. Recovery from the disease rarely takes place without appropriate treatment.

The etiology of the disease is not established. Wertheim believes the primary irritation to be due to a disproportion in size between the hair-shaft and the hair follicle. Hebra and Kaposi attribute it to the after-growth of a new hair at the bottom of the follicle before the mature hair has been shed. The disease is sometimes caused by the extension into the hair follicles of a more superficial dermatitis, such as eczema. At other times it is evidently due to the constant contact with the skin, of an acrid discharge, for example, a catarrhal discharge from the nose, which is frequently accompanied by sycosis of the upper lip and the parts of the nostril studded with the fine hairs called vibrissæ. When the

inflammation is once lighted up it is kept up by the movements to which the hairs are constantly subjected.

The form of sycosis under consideration is not contagious ; is not caused by a parasite, and cannot be conveyed from one individual to another through the utensils or manipulations of the barber. It is not caused by shaving, as the most severe and persistent cases are found in persons who do not shave. It is not very rare, the lighter forms, constituting, perhaps, 4-5 *per cent.* of all forms of skin disease seen in this part of the country. It is most frequently seen in individuals between twenty-five and forty years of age.

The pathology of sycosis has been shown by Robinson to be primarily a peri-folliculitis, progressively attacking the follicle itself. There is reason to believe, however, that the inflammation may not infrequently begin in the follicle and extend secondarily to the peri-follicular tissues.

The diagnosis of non-parasitic sycosis is comparatively easy if the salient features of the disease are borne in mind. Each papule or pustule is perforated by a hair, and the disease is essentially an inflammatory affection of the hair-follicle and the immediately surrounding structures. In fact, sycosis bears a nearer resem-

blance to acne than to any other skin disease. In acne, the sebaceous glands and structures immediately adjacent are the seat of the morbid process, while in sycosis the hair follicles and surrounding tissues are the parts affected. From the intimate anatomical relations of the hair-follicles and the sebaceous glands it is evident that the two diseases must be closely related morbid processes.

From eczema of the bearded portions of the face, sycosis is differentiated by the absence of the characteristic features of the former disease. In sycosis there is usually no itching or discharge of sticky serum, which symptoms especially mark an attack of eczema. In eczema there is likewise more infiltration of the skin, and the inflammation extends beyond the borders of the beard and may even involve the entire face; in sycosis, the inflammation is limited to the parts covered by thick hairs. It should be remembered, however, that a long-standing eczema of the beard may result in, or rather be complicated by sycosis. Even the deep abscesses, furuncles and fungous sores may sometimes be seen in cases of very intense chronic eczema in strumous individuals.

From parasitic sycosis the differentiation will be aided by a history of the case. The latter

disease usually begins as a ringworm—*tinea circinata*—and the fungus which is the cause of the disease can usually be found without much difficulty in the scales and affected hairs, with the aid of a good microscope. In this form of the disease the hairs also fall out much earlier than in the non-parasitic variety. The hairs are also dry, lustreless, broken off, and split at the broken end. When the inflammation extends deeper in the parasitic form, there are usually numerous deep and very painful abscesses which give a knobbed appearance to the lower jaw. On opening these abscesses, a mucous or mucopurulent fluid is discharged.

The pustular or tubercular syphilide should offer no difficulty in differentiating it from non-parasitic sycosis. I have, however, seen two cases where the two diseases were present in the same individual, and caused considerable hesitation in arriving at a conclusion. In these cases I found the sycosis especially obstinate; both had a catarrhal discharge from the nose which kept up the irritation of the upper lip, where the disease was principally localised. In one of the cases the eyebrows were also affected by the sycosis. In syphilis, the generalisation of the eruption, and the tendency to destructive ulceration of the lesions when long continued,

will enable the diagnosis to be made with little difficulty.

The prognosis of sycosis is favorable. It demands, however, more personal attention from the physician in its treatment than almost any other skin disease. A neglect of certain precautions—to be presently pointed out—on the part of either physician or patient, will result in almost certain failure to cure the disease, and consequent disappointment to the patient and discredit to the doctor.

The important points to be insisted upon in the treatment of non-parasitic sycosis are four: Shaving of the affected part, puncturing all abscesses and pustules, the proper application of appropriate ointments, and epilation. I consider it of such importance that the diseased spot should be shaved daily, or every other day, that I decline to begin the treatment of a case unless this advice is followed. There is always strenuous objection on the part of the patient, who urges various reasons for not carrying out this procedure. It will be found, however, upon trial, that shaving—if the barber is expert and the edge of the razor keen—is not nearly so painful as the patient anticipates, and the rapid improvement which follows soon removes all objection to the practice. When there is con-

siderable crusting and scabbing, the accumulated crusts are first softened by the use of sweet oil, lard, simple ointment or a poultice, and then shaving commenced. In order to facilitate the removal of the crusts the beard can be first shorn with scissors. After the face has been shaven, all pustules, tubercles, papules boils and abscesses, should be opened with a fine, sharp bistoury, and the discharge of their contents and of the blood which flows pretty freely, encouraged by douches of hot water. This is best done by dipping a large, soft sponge in very hot water and applying it to the diseased surface, continuing this for five or ten minutes. When the bleeding has ceased some soothing ointment should be applied on cloths and bound to the parts.

Hebra's ointment, or the ointments of ammoniated mercury, calomel, (3ss-3j: ʒj) yellow oxide of mercury, (gr. x-xx to ʒj) or oxide or oleate of zinc will be found to answer the purpose. The irritation soon subsides, and on daily repetition of this procedure, the face shows marked improvement in a few days. When abscesses and pustules cease to form, I generally direct the 5 per cent. oleate of mercury ointment, and know no other application which gives such satisfactory results. An ointment composed of

equal parts of Hebra's and mercurial ointments is also very useful. The diffused redness that remains can be made to disappear more rapidly, by an occasional superficial scarification, and the application twice or three times a week of a solution of carbolic acid in alcohol, (1 pt. to 4). The shaving must be continued for at least a year after the final disappearance of the eruption, for upon allowing the beard to grow again the disease is exceedingly liable to return.

In many cases of this disease it will be advisable, and will hasten the cure, to pull out the hairs from the inflamed follicles. It will be found that this procedure, if consistently carried out, shortens the duration of the disease very materially. It is, however, not so necessary in the non-parasitic as in the parasitic form, and it is very painful to the patient and trying to the practitioner.

In those cases where fungous vegetations occur, they may be destroyed by means of caustics or removed by the curette. It is only in very rare cases, however, that such severe measures are required. In most of the cases coming under the notice of the physician in this country, the simple means briefly described above, will suffice for the cure.

In sycosis no internal remedies are requisite,

unless there should be disturbance of function of some internal organs, the digestive apparatus for example, when the appropriate remedies demanded by the case should be given.

FORMULÆ.

I.

R̄ : —Acidi tannici, gr. viij.
Sp. myrciæ, $\frac{z}{3}$ iv. M.

For hyperidrosis of the hands and axillæ.

II.

R̄ : —Zinci oxidi, $\frac{z}{3}$ j.
Pulv. amyli, $\frac{z}{3}$ iv. M.

For hyperidrosis localis, acute vesicular eczema, herpes facialis, preputialis, etc.

III.

R̄ : —Pulv. calaminæ, 3 ii.
Pulv. iris Florentinæ, $\frac{z}{3}$ i.
Pulv. amyli, $\frac{z}{3}$ iij. M.

For hyperidrosis localis, and as a general dusting powder.

IV.

R̄ : —Pulv. acidi boracici, 3 j.
Pulv. cretæ præcipitatae, $\frac{z}{3}$ iv.
Ol. rosæ gtt. i. M.

For hyperidrosis localis, bromidrosis, chafe, etc.

V.

Unguentum Hebræ.

℞:—Emplastr. plumbi,
Ol. olivæ, aa, $\frac{z}{3}$ iv.

M. ft. ungt.

S: Diachylon ointment. The most useful "stock ointment" in the treatment of skin diseases.

VI.

Unguentum Vaselini Plumbicum.

℞:—Emplastr. plumbi,
Vaselini, aa $\frac{z}{3}$ iv.

M. ft. ungt.

A modification of the above, first suggested by Dr. H. G. Piffard of New York.

VII.

Boracic Acid Ointment.

℞:—Acidi boracici, $\frac{3}{4}$ i.
Glycerinæ, $\frac{3}{4}$ i.
Cerati simplicis, $\frac{z}{3}$ ii.

M. ft. ungt. For bromidrosis.

VIII.

Glycerite of Starch.

℞:—Amyli, $\frac{3}{4}$ ii.
Glycerinæ, $\frac{z}{3}$ ii. M.

Rub together in a mortar until thoroughly mixed and then heat slowly with constant stirring.

IX.

Spiritus Saponis Kalinus.

℞:—Saponis viridis,
 Sp. vini rectific. aa $\frac{z}{3}$ ii.
 Ol. lavandul. gtt. x.

M. Useful as a detergent agent in many skin diseases.

X.

℞:—Hydrarg. bichlor., gr. j.
 Sp. vini. rect., $\frac{3}{4}$ i.
 Ungt aquæ rosæ, $\frac{z}{3}$ ii.

M. ft. ungt.

XI.

℞:—Hydrarg. oxid. rubr. gr. v.
 Ungt aquæ rosæ, $\frac{z}{3}$ ii.

M. ft. ungt.

XII.

℞:—Hydrarg. ammoniat. $\frac{3}{4}$ i.
 Tr. capsici, $\frac{3}{4}$ i.
 Vaselini, $\frac{z}{3}$ ii.
 Ol. bergamii, gtt. iv.

M. ft. ungt.

XIII.

℞:—Sulphuris præcip., $\frac{3}{4}$ j.
 Ungt aquæ rosæ, $\frac{z}{3}$ ii.

M. ft. ungt.

XIV.

℞:—Sulphuris præcip. 3 i.
 Acidi salicylici, grs. xx.
 Vaselini, $\frac{7}{8}$ ii.

M. ft. ungt.

XV.

℞:—Ol. Rusci crudi, 3 j.
 Ungt aquæ rosæ, $\frac{7}{8}$ ii.

M. ft. ungt.

XVI.

℞:—Ferri sulph.
 Potassii carb. aa 3 i.

M. ft. pil. No. XL.

S: 1-2 three times a day. An excellent ferruginous tonic.

XVII.

℞:—Liq. potassii arsenitis.
 Syrupi simplicis aa 3 ii.
 Vini ferri, $\frac{7}{8}$ iss.
 Aquæ, $\frac{7}{8}$ ii.

M. S: Teaspoonful immediately before or after each meal. (Each teaspoonful contains nearly 4 minims of Fowler's solution).

XVIII.

℞:—Tr. ferri chlor. $\frac{7}{8}$ ss.
 Acidi phosph. dil. 3 ii.
 Syrupi limonis, q.s. ft. $\frac{7}{8}$ iij.

M. S: Teaspoonful in water after each meal.

XIX.

R:—Tr. calumbæ.
Aquæ calcis. aa $\frac{z}{3}$ iv.

M. S: Tablespoonful at meal times.

XX.

R:—Magnesii sulph. $\frac{z}{3}$ i.
Tr. ferri chlor. $\frac{3}{3}$ i.
Aquæ, q.s. ft $\frac{z}{3}$ iv.

M. S: Tablespoonful to be taken in a tumblerful of water before breakfast.

XXI.

R:—Aceti, $\frac{3}{3}$ ii.
Glycerinæ, $\frac{3}{3}$ iii.
Kaolini, $\frac{3}{3}$ iv.

M. ft. pasta.

XXII.

R:—Pulv. amyli, $\frac{3}{3}$ ii.
Ungt aquæ rosæ, $\frac{z}{3}$ j.

M. ft. ungt.

XXIII.

R:—Potassii acetat.,
Ext. taraxaci fl., aa $\frac{z}{3}$ i.
Aquæ, q.s. ft. $\frac{z}{3}$ iii.

M. S: Teaspoonful in a tumblerful of water, 3 times a day after meals.

XXIV.

℞:—Potass. sulphureti,
 Zinci sulphatis, aa 3 ss.
 Glycerinæ, 3 i.
 Aquæ rosæ q.s. ft ℥ iij.

M. S: Apply 2-3 times daily.

XXV.

℞:—Sulphuris præcip. }
 Potassii carb. } aa 3 i.
 Sp. vini rectific. }
 Glycerinæ

M. ft. pasta.

S: To be applied at night in indurated acne.

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PREFACE.

The rapid exhaustion of a large edition of No. 1, of these "Practical Notes" seems to indicate a demand for a continuance of the series. The author hopes for this *Lieferung* a similarly favorable reception.

ECZEMA.

GENERAL CONSIDERATIONS.

Willan and all other English dermatologists, until a very recent period, characterised eczema as a vesicular disease, accompanied by the discharge of a sticky, albuminous fluid. Other clinical manifestations of a pathological condition apparently similar to that underlying the vesicular eruption were classed as separate and distinct diseases. Thus, an itching papular eruption was termed lichen or prurigo ; a pustular eruption was impetigo ; and an erythematous or a scaly eruption was an intertrigo, psoriasis, or pityriasis. While these names still have a place in dermatological nomenclature, they have at present, in most cases, a different signification to that possessed by them twenty-five years ago.

Hebra, to whom belongs the credit of freeing dermatology from the clogs of artificial classifications and a meaningless terminology, recognised the close relation of these various manifestations, and gave to eczema a more compre-

hensive definition than was given to it by the English, French, or early German schools. According to this definition, eczema is an acute or chronic non-contagious inflammation of the skin, manifesting itself either in reddened or scaly patches, papules, vesicles, pustules, or fissures, characterised in many cases by the exudation of a colorless or yellowish, sticky fluid, which dries into amber-colored or brownish crusts, and is accompanied by intense itching.

If we accept this definition of eczema, our conception of the disease becomes at once much more clear and simple. We are led to pay attention to the pathological condition underlying the morbid process rather than to the manifestations of the disease in any particular case.

It is probable that eczema is, in the majority of cases, due to external impressions upon the skin, *i. e.*, it is the effect of some local irritant influence, either chemical or dynamic. There can be little doubt, however, that a peculiar predisposition of the skin to take on eczematous inflammation is necessary before the influences mentioned will produce an eczema. Thus, in some individuals, the most violent scratching or friction, chemical irritants, or changes of temperature or moisture, will fail to produce an

eczema, while in others any of these influences, even in a mild degree, will produce an outbreak of the disease. It is not necessary to assume, however, that there exists a peculiar dyscrasia or diathesis, to which the term eczematous diathesis is applicable. The evidence which we have bearing upon this point seems to the writer to point to the opposite conclusion.

Although the writer is firm in the conviction here expressed that eczema is mostly due to external physical impressions upon the skin, it is not intended thereby to exclude altogether affections of internal organs as predisposing, or even as exciting causes of outbreaks of the disease. Disorders of the digestive organs, the liver or kidneys, and disturbances of the nervous system, seem to have an etiological relation to outbreaks of eczema in some cases.

Eczema is in all cases a curable disease. The predisposition of the skin cannot, however, be removed by any means at present known. Eczema is always liable to recur when the irritation is repeated. Hence, while the prognosis as to any individual attack is favorable, a permanent cure cannot be promised in any case.

If it be true, as stated above, that eczema is, in by far the larger proportion of cases, due to a merely local impression of greater or less in-

tensity, it follows, as a matter of course, that local measures should suffice for its cure: and we find this to be generally true.

ACUTE ECZEMA.

For purposes of clinical description, eczema is divided into varieties determined by its duration, its localisation and the nature of the primary lesion. Hence, we may speak of acute and chronic, general and local eczema.

The varieties depending upon the nature of the primary lesion are the erythematous, papular, vesicular and pustular. The acute form of these varieties will be briefly described.

Acute erythematous eczema most frequently occurs in consequence of friction of two opposing surfaces of the skin, the action of heat or chemical irritants, or the influence of moisture. Hence it is oftenest seen in the perineum, and on the inner surfaces of the thighs in children and adults, and in fact wherever the surfaces of the skin are habitually in contact, especially if the effect of the friction is heightened by heat and decomposing secretions. This condition known in the vernacular as "chafe," is often the source of great annoyance both to physician and patient, from its obstinacy.

Acute papular eczema is most frequently

found on the forearms, hands and feet, and is often due to the influence of high temperature of the air (as in aggravated cases of "prickly heat")* or to persistent scratching. The writer has seen it not unfrequently follow an outbreak of the small papular urticaria, so often localised upon the back of the hand and fingers. The severe itching accompanying the urticaria causes the part to be rubbed and scratched until the temporary disturbance of nutrition has become prolonged, and what was at first simply an evanescent affection has become one of more permanence.

Papular eczema frequently runs into a stage of further development of the lesion, and becomes vesicular. In other cases the vesicular form is the one first developed. This is the old typical form of eczema—closely aggregated, fragile vesicles, which, bursting, exude a sticky fluid that stiffens but does not stain linen. It is frequently seen upon the face, ears and genital organs. There is often much serous infiltration of the skin, giving the part the appearance of erysipelas. There is, however, no pain or febrile disturbance, so marked in the latter disease. In erysipelas the skin is dark-red and shiny, while in eczema the color is much less deep. In ec-

* See *Practical Notes on the Treatment of Skin Diseases*, No. I, p. 20.

zema there is also burning, and in most cases intense itching.

Pustular eczema is most frequently seen as it affects the hairy scalp in children, or the hairy regions of the face in adults. The pustular character is very frequently the expression of a depravement of the system.

Perhaps in most cases of vesicular eczema, the vesicular character of the disease has disappeared when the physician is called. The vesicles have burst, and their contents have either dried into yellowish-brown crusts, or a red, weeping surface is exposed. This is the eczema rubrum of authors, and should be considered as a secondary form of the disease. When it occurs in parts where the skin is subject to much movement, as the flexures of joints, etc., fissures result, extending into the cutis, which are very painful sometimes. This is what is termed in the books eczema rimosum.

In a small proportion of cases, eczema in all, or a number of its various forms, will be found attacking the entire body or its larger surface. In such cases the vesicular and pustular forms will be found on the face, head, limbs and genitals; the erythemato-squamous form will be found on the trunk; the flexures of the joints will be occupied by the fissured and weeping

forms; while the papular variety will be almost exclusively localised upon the forearms and legs.

Acute eczema may be limited to certain portions of the body, or may extend over the entire surface. There are certain sites of predilection where it is oftenest localised. These are the face, the genital organs, and the extremities.

Acute eczema oftener presents the vesicular character than do the chronic cases of the disease. It begins suddenly by an outbreak of small vesicles, aggregated in heaps, the eruption usually having arrived at its height in the course of forty-eight hours. In the most favorable cases, the involution of the process now begins, the contents of the vesicles are absorbed, and the dried epidermis cast off in whitish scales. In other cases the vesicles rupture, and the contents dry upon the surface in gum-like crusts, which drop off in a few days leaving a slightly reddened, but otherwise normal surface.

The eruption of the vesicles is accompanied by redness and tumefaction of the skin, and subjective sensations of burning, tension, and later by itching. If the surface involved is extensive, the constitutional symptoms of fever may also be present.

This favorable termination of the affection is

however exceptional. In the majority of cases, relapses occur, or the action of local irritants prolongs the morbid process, and the disease, while undergoing certain clinical modifications, persists, and eventuates in chronic eczema.

Acute general eczema, in which the disease attacks almost the entire surface of the body, is rather rare. In such cases the various primary manifestations will usually be present upon different parts of the surface, as above mentioned.

In acute eczema of the face there is usually great œdema of the skin, especially about the eyelids, which are sometimes swollen to such an extent as to prevent opening the eyes. The redness is also marked, and sometimes suggests the appearance of erysipelas, but the tense, shiny skin of the latter is not present in eczema. The surface is usually uneven, owing to the presence of papules and vesicles. Upon the ear the vesicles are usually present in very great number.

The genital organs are affected with acute eczema in the male oftener than in the female. When the penis is attacked, the swelling is enormous, and as it occurs very rapidly the patient is often greatly alarmed. The organ is thickly studded with innumerable little vesicles. In the course of a few days the swelling usually diminishes and the organ returns to its normal size.

There is rarely any exudation upon the skin of the penis.

In eczema of the scrotum, the swelling is also very great, and the vesicles soon burst and exude a large quantity of the characteristic sticky fluid of eczema. The decomposition of this exudation gives rise to an exceedingly disagreeable odor unless the most scrupulous cleanliness is observed.

Upon the hands and feet, acute eczema appears in the form of numerous tense vesicles varying in size from a hemp seed to a small pea. At first there is a "furry" sensation succeeded by itching. When there is much swelling, the mobility of the fingers and toes is lessened and in some cases entirely abolished, on account of the pain and tension.

The vesicles in eczema of the hands and feet are frequently very tense and resistant. They do not burst readily. Sometimes several run together to form a good-sized bleb. The itching is usually intense, and is often only relieved by fierce scratching.

CHRONIC ECZEMA.

In chronic eczema the typical characters presented by the acute are very often absent. The persistence of the morbid process gives oppor-

tunity for the production of various pathological conditions: such as excoriation, scaling, crusting and scabbing. The infiltration of the skin increases, the normal pliability of the integument becomes lost, and on pinching up a fold it resembles leather of various thickness rather than living skin. In most cases there is considerable discharge and violent itching. When the disease continues a long time the skin becomes pigmented, especially in lines marking out the erosions produced by the finger nails in scratching. Very often the lesions due to scratching extend down into the papillary layer, as shown by the dried blood-crusts which are found upon the eczematous patch.

Although chronic as well as acute eczema may affect the whole surface of the body, or only a limited area, it is most frequently observed in certain localities in each of which it presents clinical peculiarities requiring separate description.

In describing these various forms of the disease, the practical needs of the physician and student will be kept in view.

Only those features will be noted which are necessary to arrive at an accurate diagnosis.

According to its localisation, chronic eczema may be divided into

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1. Eczema of the scalp ;
 2. “ “ “ face ;
 3. “ “ “ trunk ;
 4. “ “ “ genitals and anus ;
 5. “ “ “ flexor surfaces of joints ;
 6. “ “ “ hands and feet ;
 7. “ “ “ legs.

Eczema of the scalp is most frequent in children, in whom it is usually present in the pustular form. It may also appear as the erythematous or squamous, the latter being the variety most frequently seen in adults. It may occur in patches, or uniformly distributed over the entire scalp. The crusts are usually thick, and yellowish, greenish, or brownish. They are formed of scales, pus, and the secretion of sebaceous glands. If strict attention is not paid to cleanliness, the material of which the crusts are composed undergoes decomposition and exhales a very disagreeable odor. The hairs are frequently matted together in the scabbing process and the whole scalp may be covered by a large firm crust, under which there are sometimes large collections of pus. When eczema of the scalp is neglected, especially in children, the head will frequently be found infested with lice. On the other hand the irritation caused by the presence of lice is not rarely the starting point for an eczema.

Eczema of the scalp sometimes extends beyond the hairy part of the head and invades the forehead, ears and back of the neck, in form of a red band, covered by whitish, unctuous scales.

The hair sometimes falls out, but permanent baldness from eczema is extremely rare.

Enlargement of the post-auricular and post-cervical glands is nearly always present in eczema of the scalp, especially in children.

The table on the opposite page is a modification of one given by McCall Anderson, and presents the most prominent differentiating points between eczema of the scalp, pustular syphilide, psoriasis, ringworm and seborrhœa. With its aid, and remembering other essential features of the disease, no difficulty ought to occur in making a diagnosis.

Eczema of the face is either limited in extent, or the entire face may be attacked by the morbid process. The affection may also be confined to the hairy portions of the face, *i. e.*, the beard, eyebrows, eyelids, and internal surface of the nostril. Eczema of the beard is a pustular inflammation around the hair-follicles, accompanied by burning, itching, sero-purulent discharge and crusting.

If the inflammation extends deeply into the hair-follicles, a condition similar to that known

ECZEMA.

ECZEMA.	PUSTULAR SYMPHILIDE OF SCALP.	PSORIASIS.	RINGWORM.	SEBORRHEA.*
1.—Most frequent in children.	1.—Usually in adults.	1.—Rare in young children.	1.—Almost limited to children.	1.—In larger, irregular patches.
2.—Entire scalp often attacked.	2.—Most frequently in small patches.	2.—Generally in small patches with abrupt border.	2.—In circular patches, extending peripherally, with dry, scaly centre and papular, vesicular or pustular border.	2.—Moderate itching.
3.—Severe itching generally.	3.—No itching.	3.—Itching not severe usually.	3.—Slight itching.	3.—Scales greasy and seated upon a red, shiny, not exuding base.
4.—Crusts, brittle and often thick; after removal scalp is red, infiltrated, excoriated and exuding serum or pus.	4.—Generally deep ulcers with abrupt edges and unhealthy base.	4.—Scales dry white and silvery seated on red, <i>dry</i> , slightly elevated base.	4.—Hairs generally broken off "like a stubble-field," dry and split. Parasite (<i>trichophyton tonsurans</i>) may be discovered in microscopic examination.	4.—Hairs often fall out, and may not be reproduced.
5.—Borders of patches gradually shading off into healthy skin.	5.—Other signs of syphilis present.	5.—Psoriasis on other parts of body, especially elbows and knees.	4.—Contagious	
6.—Hairs healthy; not broken off or split.				
7.—Not contagious.				

* Consult also: Practical Notes on the Treatment of Skin Diseases, No. 1.

as sycosis* is established. In the latter the inflammation is limited to the hair-follicles and the peri-follicular tissues, while in eczema the inflammatory process may extend beyond the surface covered with hair.

In eczema of the eyebrows, the ciliary borders of the eyelids, and the internal surface of the nostrils, the condition is principally a folliculitis. Little flat pustules occur, perforated in the centre by a hair. The hairs are not loose in the follicles however, as in parasitic diseases, but are firmly attached, and cannot be removed without causing pain.

Upon the non-hairy parts of the face eczema usually appears in the form of the erythematous, pustular, or scaly varieties. The erythematous, or erythemato-squamous generally appears upon the forehead, sides of the nose or chin, and is generally accompanied by intense itching.

The eczematous action upon the lips, the angle between the nostrils and cheeks, the eyelids, and the post-auricular angle is generally manifested by the presence of one or more fissures, which render movements of these parts painful, and from which the eczematous fluid often exudes in considerable quantity. The post-auricular eczema is often very persistent. The same may

*See Practical Notes on the Treatment of Skin Diseases, No. 1.

be said of fissured eczema of the lips, which when long continued, may cause considerable infiltration and hypertrophy of the labial margin. It is also often very painful ; every time the mouth is opened some of the fissures are stretched or torn, and in consequence laughing, talking, eating or any movement of the mouth causes much pain.

In children, eczema of the face is frequent and when extensive has given rise to the popular name "milk crust." The scabs in this condition are formed by the drying of the exudate mingled with sebaceous secretion.

The only diseases likely to be mistaken for eczema of the face are ringworm and erythematous lupus. In the former the patches are always circular or with gyrate outlines, with a somewhat pale, scaly centre and papular or vesicular border. In erythematous lupus the color of the patch is dark red or brownish, the scales are greasy and adherent, and when detached, fine prolongations are observed on their under surface.

Eczema of the trunk may occur in scaly patches from the size of a small coin to that of a hand. The patches are usually dry and scaly. When chronic there is usually much infiltration. The itching is usually not very severe.

The disease is often localised about the nipples of nursing women, constituting the troublesome affection known as "sore nipples." The nipple is red, swollen, with deep, very painful clefts (fissures) running around its base. The act of nursing causes the mother excessive pain. The disease is very obstinate on account of the difficulty of giving the parts complete rest.

Several years since, Sir James Paget described a form of eczema of the nipple which is liable to run into cancer of the breast. Microscopic examinations by Thin and Wile have shown that the disease is epitheliomatous at a very early stage if not from the beginning. But the fact remains that in an individual predisposed to cancer, any persistent irritation may determine the point where the disease will localise itself. In the opinion of the writer, cancer of the breast or of any other part may result as the direct consequence of the irritation of a prolonged eczema. It is especially advisable therefore that mammary eczemas should not be neglected, but should be cured as quickly as possible.

There are several points of distinction between "Paget's disease" and ordinary eczema which are presented in the following table, copied from Anderson :

PAGET'S DISEASE.

1.—Occurs in women over 40 years of age.

2.—Surface affected, in typical cases, of brilliant red color, raw and granular-looking after removal of crusts.

3.—When grasped between the thumb and forefinger, superficial induration often felt, "as if a penny were laid on a soft, elastic surface, and grasped through a piece of cloth."

4.—Edge of eruption abrupt and sharply cut, and often elevated.

5.—Very obstinate; and only yields to extirpation or other treatment applicable to epithelioma generally.

ECZEMA OF THE MAMMA.

1.—Generally in women before the age of 40; especially during lactation.

2.—Surface not so red and raw looking, and not granular, but often punctuated.

3.—Infiltrated, but no induration.

4.—Edge not abrupt. Never elevated.

5.—Obstinate sometimes, but yields to treatment appropriate to eczema.

Around the navel, especially in children, eczema is not infrequent. A circumscribed area of the skin becomes swollen and inflamed, and presents a weeping surface. The itching is usually very troublesome. The decomposing secretion often keeps up the irritation for a long time.

Eczema of the genital region presents differences as it appears in the two sexes. Occurring upon the male organs, chronic, like acute eczema, does not always affect both penis and scrotum at the same time. Upon the penis the inflamma-

tion will generally be noticed to occupy the summits of the transverse folds of integument when the organ is in the flaccid condition. To make this plain, it is only necessary to seize the prepuce and draw it forward, when the folds will be smoothed out, and the ridges will be seen as red lines running transversely to the organ. Along the inferior surface of the penis the skin will be more or less uniformly reddened and discharging. The mucous surfaces of the prepuce and glands are not attacked by the eczematous inflammation.

Eczema of the scrotum presents itself as a red discharging, raw-looking surface, from which the epidermis seems to have been stripped off. The discharge is sticky and has an extremely unpleasant odor. Sometimes the ridges of the corrugated scrotal skin are alone affected and when this is put upon the stretch, red lines are seen running across the diseased surface in various directions. In rare instances where the disease has lasted a long while, the skin becomes greatly thickened and infiltrated, producing an appearance resembling elephantiasis. In such cases the penis is often almost or entirely hidden by the hypertrophied scrotum which rises up and surrounds it. The itching is usually very intense, especially at night.

In the female, eczema of the genitals is usu-

ally localised upon the greater labia, and may spread thence to the thighs or abdomen. The mucous membrane covering the lesser labia may also become inflamed. There is great swelling, puffiness of the labia and increased secretion from the mucous membrane, very much resembling, at times, an attack of gonorrhœa. The itching is very annoying. A frequent cause of eczema of the genitals is diabetes; and it will always be well to examine the urine for sugar in cases of intractable eczema of these parts, in both sexes.

Eczema of the perineum and anus is also very troublesome. The itching is usually intense and the affection very resistant to treatment. Fissures frequently exist radiating outward from the anal margin, and cause intense pain at every fecal evacuation. The fissures discharge an abundant quantity of serum which rapidly undergoes decomposition and increases the irritation of the parts.

Eczema of the flexor surfaces of the joints is one of the most painful of this class of affections. The skin is greatly infiltrated and deep fissures extending down into the corium, run transversely across the patch giving great pain at every movement of the joint. The eczema when attacking the joints is nearly always sym-

metrical. Not infrequently the pain on motion is so great that the patient refrains from moving the joint at all, keeping it immovable in the position where it is most comfortable, and often presenting the symptoms of ankylosis. The disease when it affects these localities cannot be mistaken for any other affection.

Eczema of the hands and feet most frequently presents the vesicular form, the vesicles preserving their walls for a considerable period. When it is chronic, the fissured condition just described is often found at the flexures of the joints. Sometimes the pain from these is so great that motion of the fingers and toes becomes practically impossible. At other times the epidermis of the palms and soles becomes greatly thickened. I have seen the epidermis in cases of eczema of the soles of the feet, fully half an inch in thickness.

Eczema of the legs is one of the most frequent local varieties of eczema. It occurs very often in connexion with varicose ulcers of the lower extremities. It may appear as red, shiny patches over which the skin is thickened and tense, or as a red weeping surface, covered with scales and crusts. The itching is usually very intense. An artificial dermatitis which may run into eczema is not infrequently induced in this locality

by scratching, in patients infested with lice.

In some cases of very persistent eczema of the legs, the skin becomes very much thickened, hard, and even warty, and the condition known as elephantiasis is produced.

DIAGNOSIS.

The attempt has been made to give a sufficiently exact description of the various manifestations of eczematous inflammation of the skin to render any detailed remarks on its differential diagnosis unnecessary. In discussing the local varieties of the disease the diagnostic features have also been pointed out. It may still be advisable however, to recapitulate the salient symptoms of eczema and contrast them with the diseases most likely to create doubt as to the diagnosis.

It will be remembered that in eczema, the primary lesions are erythema, papules, vesicles, and pustules, and that usually there will also be one or more of the secondary lesions, or lesion relics, excoriations, scales, crusts, scabs or fissures. As diagnostic features must be mentioned the discharge—"weeping"—from the affected surface, and the itching which is nearly always a symptom of the disease. It is also well to bear in mind that eczema produces no

ulceration, and leaves, after disappearing, no scars.

The various forms of herpes present some resemblance to, and may be mistaken for eczema. But in herpes there is no itching. If any subjective symptom is present at all, it is either burning or pain. In herpes the vesicles are large, aggregated in groups, and not disposed to break and form crusts. In shingles the distribution and arrangement of the vesicular groups are so peculiar that no doubt can arise.

That form of herpes commonly termed fever blisters is so familiar to everyone that it is not likely to be confounded with eczema. Sometimes, however, it becomes irritated and runs into a true eczema.

Another disease which sometimes presents a great similarity to eczema is the itch. In this, as in eczema, the lesions are multiform, —papules, vesicles, pustules and excoriations being present. In itch however, the lesions are usually separated and scattered over the entire body, except the head and face which are generally exempt. In eczema, on the other hand, the tendency is to remain localised in patches. In itch, the parasitic animal—the itch-mite—which is the cause of the disease can also usually be discovered.

Psoriasis sometimes causes considerable difficulty in diagnosis, but if it is remembered that in this disease the affected surface is always dry, that the scales are silvery white and seated upon a sharply defined red base which readily bleeds when the scales are scraped off, that it is usually localised upon the extensor surfaces, and that the itching is less intense than in eczema, the differentiation can usually be made.

In lichen, the distinctly papular, dry, umbilicated lesions, with the characteristic localisation and aggregation will enable one to arrive at a diagnosis.

TREATMENT.

The treatment of eczema is naturally divisible into internal and external. Assuming that the physician is imbued with the general therapeutic principle that all disturbances of function of internal organs should be corrected if possible before or coincidently with beginning the treatment of the skin disease, I will proceed to the consideration of the internal remedies appropriate in the treatment of eczema. The first of these in importance and usefulness is arsenic. This remedy should not be given in acute cases however, but in chronic papular or scaly eczema, it often acts with almost specific power.

The form in which arsenic is given is of some importance. Fowler's solution (liquor potassii arsenitis) often produces nausea on account of its taste. This tendency is easily overcome by giving the medicine in a tablespoonful of sherry wine. The proper dose of Fowler's solution to begin with, is 3-5 drops three times a day. It should always be taken with, or immediately after meals. The dose should be very gradually increased until the limit of physiological tolerance is established. It is my practice to add one drop to the daily dose every third day until slight puffiness of the eyelids, or redness of the conjunctivæ come on. The dose should then be slightly diminished, and its effects on the disease noticed. It will generally be found that in scaly diseases, improvement has begun even before the limit of tolerance has been reached. The medicine can be continued indefinitely without bad effects. No danger need be apprehended of "cumulative doses," arsenic being rapidly eliminated from the system.

Pearson's solution (liquor sodii arseniatis) is also used sometimes, but has no advantage, so far as I know, over the preparation above mentioned. It may be given in doses of ten drops, gradually increasing until the desired effect is produced.

DeValangin's solution (liquor arsenici chloridi) is one of the best of this class of preparations. It may be made extemporaneously by dissolving one grain of arsenious acid in one fluid ounce of water and adding half an ounce of dilute hydrochloric acid. This may be given in fifteen drop doses in sweetened water after each meal. The dose can be increased by adding one drop to each dose every other day. The acid acts as a digestive tonic, which is often indicated in diseases benefited by arsenic.

Arsenic may also be administered in the form of pills. The *pilulæ Asiaticæ* have long been esteemed as an efficient preparation in psoriasis. They consist of arsenious acid and black pepper. The following formula, suggested by Duhring, may be used :

R :—Acidi arseniosi, gr. ii.
Pulv. piperis nigr.
Pulv. glycyrrhizæ, aa gr. xxxii.
M. ft. pil. No. xxxii.

S : One three times a day.

The remedy next in value and importance to arsenic is iron. It is often of use in the acute form of the disease, the best preparation in these cases being the tincture of the chloride. In pustular eczemas syrup of the iodide is often of great value. Of the most unqualified

value is cod liver oil. In so-called "strumous" children, where there is much formation of pus on the eczematous patch, the lymphatic glands enlarged, the skin dry and harsh, cod liver oil may be prescribed with the confident expectation of great improvement in the patient's condition.

Eczema has often seemed to me to be connected with the excessive consumption of tea; especially if too little nutritious food was taken. In such cases milk should be substituted for the tea, and endeavors made to induce the patient to increase the quantity of beef, eggs, and similar articles of food. Fresh air and exercise are important adjuvants to any plan of treatment.

In many cases of eczema, a sharp purge is often of value as initiatory to the treatment. A full dose of sulphate of magnesia, or calomel, will often be useful. In other cases, the daily administration of a small dose (3 i) of sulphate of magnesia, either combined with sulphate of iron, (gr. ii) or quinine (gr. i-ii) will aid the cure. I often order the following :

R :—Magnesii sulph. $\bar{\text{z}}$ i.

Tr. ferri chlor. . 3 iss.

Aquæ q. s. ft. $\bar{\text{z}}$ iv.

M. S : Tablespoonful in a goblet full of water every morning.

Calomel in $\frac{1}{2}$ gr. doses three times a day for 3-4 days is often of value. I very often prescribe the smaller dose in acute eczemas of children.

An excellent tonic prescription is one containing iron and phosphoric acid, as follows :

R :—Tr ferri chlor. 3 iii.
 Acidi phosph. dil. 3 ii.
 Syrupi limonis, q. s. ft. $\frac{3}{4}$ ii.

M. S : Teaspoonful in water after each meal.

Acetate of potassium combined with fluid extract of taraxacum, according to the following formula, will often greatly aid local measures in cases of acute eczema :

R :—Potassi acetat.
 Ext. taraxaci fl. aa $\frac{3}{4}$ i.
 Aquæ, q. s. ft. $\frac{3}{4}$ iii.

M. S : Teaspoonful in a tumblerful of water, three times a day after meals.

Local Treatment.--Of far more importance than the internal medication is the local or topical treatment of eczema. The "management," as Dr. Bulkley happily styles it, of a case of acute eczema will often draw upon all the resources of the physician's art. It is not only requisite that he shall know what remedies to use, but he must know how to apply them and what effects to expect. It is often of more importance to know

what not to do than to have a large formulary at command and use it with indiscretion.

In acute eczema whether general or localised, almost any application may act as an irritant. The application of simple water may often act injuriously. Soothing measures must be exclusively employed. Among these the use of dusting powders may be first mentioned. Combinations of oxide of zinc, starch, precipitated chalk, lycopodium, or some similar article will be useful. If the itching is very severe, black wash, bicarbonate of sodium (5-10 grs. to $\frac{5}{8}$ i), carbolic acid, (1-3 grs. to $\frac{5}{8}$ i) or simply lime water will give great relief. A lotion containing atropine (gr. 1 to $\frac{5}{8}$ i) will promptly relieve the itching, but is too dangerous for use, except over small surfaces.

Starch or bran baths occasionally give great comfort, but it is better to defer their use in acute general eczema until the intensity of the inflammation has somewhat subsided. After the bath the eczematous surfaces should be dusted with one of the powders above mentioned, or some bland fatty preparation (vaseline, sweet almond oil) may be applied. Under this treatment, with careful attention to the general condition of the patient, the disease usually quickly disappears. In other cases however, the morbid

process persists and the disease becomes chronic. Here the treatment must be different. If the infiltration is not very great, some fatty application will be most useful.

The most valuable will be Hebra's ointment,* oxide of zinc ointment, vaseline with or without half to one dram of calomel to the ounce. If the infiltration is considerable these simple applications will not suffice. Remedies must be used which will hasten the exfoliation of the thickened epidermis, and promote the absorption of the infiltration in the true skin.

These remedies are mercurial ointment, calomel, ammoniated mercury, subnitrate of bismuth, tar, carbolic acid, and sometimes chrysarobin or pyrogallie acid. These may be used either in the form of ointment or lotion, the former in most cases giving the best results.

Methods of use are quite as important as a thorough knowledge of the medicament to be employed. Hence it will be advisable to take up the treatment of the various local forms of eczema seriatim.

In most cases of eczema, but especially in eczema of the scalp the first point to be attended to is the removal of the crusts. This is accom-

* See Practical Notes on the Treatment of Skin Diseases. No. I, for the formula of this ointment.

plished by covering the affected surface thickly with fresh lard, olive, or almond oil, and putting on a flannel cap. After 10-12 hours this application is to be repeated, if necessary, and when the crusts and scabs have been loosened, they are washed off with warm water and soap. Castile soap answers best for this purpose. The soap must then be thoroughly washed out with clean water and the scalp dried with a soft towel. The diseased surface is now ready for the application of an ointment. One of the best is the white precipitate ointment of various strengths (\mathfrak{D} i-3 ii : \mathfrak{z} i) depending upon the amount of infiltration present. The red and yellow oxides of mercury (gr. iii-x : \mathfrak{z} i) or calomel (3 ss-i : \mathfrak{z} i) may also be used. Tar may often be used with great advantage in eczema of the scalp. Its offensiveness can usually be modified by combining it with cold cream, using the birch tree tar by preference. The following combination is useful :

R :—Ol. rusci, 3 ss.
 Ungt aq. rosæ, \mathfrak{z} i.

M. ft. ungt.

Sulphur alone, or combined with salicylic acid, is also of value in some cases of scaly eczema of the scalp.

When eczema of the scalp is due to the pres-

ence of lice, or if these parasites are present, the part affected should be first saturated with petroleum which promptly kills the lice as well as their ova, or "nits" as they are called. It is unnecessary to cut the hair short in treating eczema of the scalp.

Eczema of the hairy parts of the face is often very persistent. The first indication after removal of the crusts, is daily shaving; after which an ointment of yellow oxide of mercury, or of white precipitate, or one composed of equal parts of mercurial ointment and simple cerate kept constantly applied, will bring about a cure. If these are too irritant, Hebra's, oxide of zinc, or oleate of zinc ointments may be tried. I have had excellent success with the last named.

The face is sometimes the seat of an erythematous or erythemato-squamous eczema which itches intensely and is often very difficult to cure. A lotion containing oxide of zinc frequently gives the best results. The following combination is a good one :

R̄ :—Pulv. zinci oxidi,	3 ii.
Mucil. acaciæ,	3 i.
Emuls. amygdal.	℥ ii.
Aquæ rosæ q. s. ft.,	℥ iv.

M. S : Apply every 3-4 hours.

This is a much more agreeable application than an ointment and often gives excellent results. An ointment containing yellow oxide of mercury and starch is also very useful. The following is a good formula :

R :—Hydrarg. oxidi flav. gr. x.
Pulv. amyli,
Vaselini, aa, $\bar{3}$ i.

The hair-bulbs of the eye lashes and of the hairs on the mucous surface of the nostrils—the vibrissæ—are sometimes the seat of a very persistent eczematous inflammation. In these cases cod liver oil is generally indicated. Locally, epilation, followed by the application of yellow oxide of mercury ointment (10 grs. to $\bar{3}$ i). Painting the diseased parts with a strong solution of nitrate of silver (3 i-ii : $\bar{3}$ i) will often promote the cure. Dilute citrine ointment (3 i-ii : $\bar{3}$ i) is also a good application.

Fissured eczema of the lips, is a very troublesome affection. It is usually very persistent. When it lasts a long time the lips sometimes become thickened and ectropic. Solution of nitrate of silver (3 i : $\bar{3}$ i) or caustic potassa (3 ss : $\bar{3}$ i) followed by a stiff cerate, "lip salve," containing one drachm of calomel to the ounce, will in most cases produce a prompt cure.

Chronic eczema of the palms of the hands and soles of the feet generally yields promptly to appropriate treatment. If the epidermis is very much thickened it may be first softened by soaking in hot water rendered alkaline with carbonate of soda, or friction with Hebra's soap tincture,* and then an ointment made of equal parts of mercurial and Hebra's ointments continuously applied. The cure is sometimes very rapid, the infiltration and fissured condition of the skin disappearing as if by magic. Other local measures will rarely be needed.

Eczema of the dorsal and lateral surfaces of the fingers is however very troublesome. It often attacks laundresses, cooks, seamstresses and grocers, the nature of whose occupations prevents the continuous application of a remedy. The itching is usually intense. It often requires applications of solution of caustic potassa (3 i : $\bar{3}$ i) followed by Hebra's ointment, or ammoniated mercury ointment.

India rubber gloves or "finger stalls" are often of great service in the treatment of these chronic eczemas of the hand and fingers. They act by confining the moisture and thus macerating and softening the diseased epidermis.

* For the formula of this preparation, see Practical Notes on the Treatment of Skin Diseases, No. I.

Eczema of the joints is a very painful affection. The diseased skin is divided into little squares or lozenge-shaped spaces by fissures of greater or less depth running in various directions. Every motion of the joint causes intense pain. It is often found in the popliteal region and from its painfulness may interfere with locomotion.

Hebra's ointment alone, or combined, when there is much infiltration, with equal parts of mercurial ointment will generally cause the disease to yield. Applications of the nitrate of silver or caustic potassa solutions are sometimes necessary, however.

Eczema of the legs is often dependent upon a varicose condition of the veins of the part. In these cases proper support must be given to the dilated vessels, before much good can be accomplished by applications directly addressed to the disease. If the case is very chronic and there is much infiltration of the skin, painting with the potassa solution (3 ss-3 i: $\bar{5}$ i) or frictions with Hebra's tincture of soap, or Bulkley's liquor picis alkalinus should be used. This preparation is made as follows :

R :—Picis liquidæ,	$\bar{5}$ i.
Potassæ causticæ,	$\bar{5}$ ss.
Aquæ,	$\bar{5}$ ii ss.

M. S : Dissolve the potash in the water and add slowly to the tar, in a mortar, with friction. To be used diluted with 1, 2, 4 or 8 parts of water.

This should precede the application of Hebra's ointment, carbolic acid ointment or ointment of ammoniated mercury, carbonate of lead, oleate of zinc, or oxide of zinc. The ointment must be kept on by a well applied flannel roller bandage (made of "Domette" flannel). After the cure is complete an elastic stocking should be worn to give the superficial veins proper support.

In eczema of the legs the rubber bandage is often applied, but unless there is considerable infiltration of the skin, it may do more mischief than good. The cases in which the rubber bandage is applicable must be carefully selected.

Chronic eczema of the scrotum often tests severely the endurance of the patient and the therapeutic resources of the practitioner. In some cases the eruption will rapidly disappear under a simple calomel ointment. In others, a tar ointment or a dilute solution of liquor picis alkalinus will have the desired effect. These are the cases which John Hunter must have had in mind when he said that skin diseases may be divided into three classes : those that sulphur will cure, those that mercury will cure, and those the devil himself can't cure. The experience of

most practitioners will probably place chronic eczemas of the scrotum in the last mentioned class.

Unless there is considerable infiltration of the skin, only mild applications, such as oxide of zinc, oxide of mercury or Hebra's ointments should be used. The itching yields better if a little tar or carbolic acid is added to the ointment. In some cases, where there is little thickening and redness, and only slight scaling a weak sulphur and salicylic acid ointment will prove successful. In obstinate cases the possibility of diabetes should be borne in mind and the urine carefully examined for the presence of sugar.

A variety of eczema which attacks the scrotum, perineum and insides of the thighs, with a moist or scaly surface and a well-defined border is not rarely seen. This is really a parasitic affection, and requires parasiticide treatment.

This disease is often very obstinate, and many remedies may be used in turn with little or no good effect. The application of strong sulphurous acid once a day, as recommended by Bulkley, or of a solution of bichloride of mercury in tincture of myrrh as recently advised by R. W. Taylor will generally give good results. I have used instead of the tincture of myrrh, the com-

pound tincture of benzoin, which is, I think, better than the former. The following formula will be useful :

R :—Hydrarg. bichlor. gr iv.

Tinc. benzoini co. *ʒ* i.

M. S :—Apply with a camel's hair pencil.

Eczema of the nipple often yields quickly to an application of simple cerate containing one drachm of calomel to the ounce. In more obstinate cases the nipple may be painted with a pigment composed of one drachm of oil of cade to one ounce of collodion or liquor gutta-percha. This is also a useful application in fissured eczemas of the lips.

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